



United States Department of the Interior

BUREAU OF LAND MANAGEMENT HOUSE RANGE RESOURCE AREA

15 East 500 North
P.O. Box 778
Fillmore, Utah 84631

TAKE
PRIDE IN
AMERICA

IN REPLY REFER TO:
3800
(U-054)

June 9, 1995

WAYNE HEDBERG
UDOGM
3 TRIAD CENTER #350
355 W N TEMPLE
SALT LAKE CITY UT 84180-1203

Dear Mr. Hedberg:

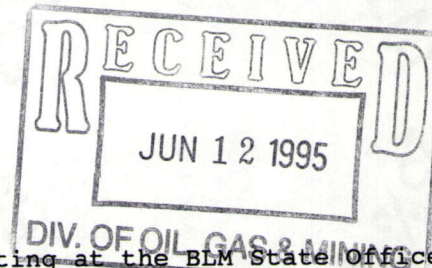
Your attendance is requested at a meeting at the BLM State Office, on June 14, 1995, at 12:30 p.m., in the Third Floor Conference Room, 324 South State Street, Salt Lake City.

The BLM House Range Resource Area issued a Notice of Noncompliance (NONC) to Jumbo Mining Company on March 10, 1995. The NONC addresses nine (9) items.

1. An estimated 157 drums of abandoned, discarded or speculatively accumulated chemical products improperly stored, marked, packaged or disposed of on the mine site.
2. Over 25 lead acid batteries and over 40 tires stored or disposed of on the site.
3. Soil stains associated with multiple chemical product sources.
4. Open ore bags scattered in the dump area.
5. Two transformers which appeared to be of the vintage that could contain PCBs.
6. Oil, diesel, and gasoline product spills around petroleum storage areas and generating station.
7. Contamination of a perched aquifer adjacent to the heap leach pads.
8. Chemicals improperly stored and labeled in the assay lab.
9. Needed inventory of the explosives magazine.

Jumbo Mining Company has responded to these issues in part. There still remains, however, work to be done to fully address the remaining items in the NONC. In order to accomplish the remaining cleanup in a cost effective and timely manner for Jumbo Mining Company, the BLM, and the involved regulatory agencies, the BLM believes it would be prudent to have all parties involved meet to discuss the following items and to reach a concurrence on how to proceed. This should provide Jumbo with the needed direction to eliminate redundancy which could be costly, and to assure all necessary regulatory requirements are met.

1. Review and approval of Jumbo's Health and Safety Plan for remediation of the segregated barrels in the dump area, sampling discarded cyanide drums in dump area trenches, soil sampling in the dump area, generating station, and petroleum storage area.

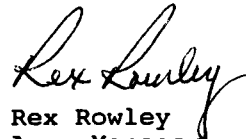


2. Review and approval of Jumbo's Sampling Plans for sampling of the areas identified in item 1 as well as the perched aquifer adjacent to the heap leach pads.
3. Proper disposal of any hazardous waste identified through sampling and proper disposal of remaining solid waste, recyclable or returnable products.
4. Resolution of any other issues and concerns related to proper remediation and reclamation of the site.

We have enclosed a copy of the Health and Safety Plan and the Sampling Plans that were provided to us by Jumbo Mining Company during our last site visit on June 1, 1995, for your review and discussion at the meeting on June 14, 1995. Also attached is a copy of Rinchem's (our hazardous materials contractor) comments on Jumbo Mining Company's proposal.

We appreciate your continuing coordination on this matter. We believe that a successful resolution of the four items listed above will be in the best interest of all the involved parties for a time and cost effective manner that will meet regulatory requirements. If you have any questions, please contact Rody Cox at (801) 743-6811.

Sincerely,


Rex Rowley
Area Manager

Enclosure

1. Health & Safety Plan
2. Sampling Plans
3. Rinchem's comments

Appendix B

SAFETY PLAN - DRUM MINE

FEDERAL AGENCY REPS (i.e., EPA, NIOSH) BLM

STATE AGENCY REPS

LOCAL AGENCY REPS

CONTRACTOR(S)

All personnel arriving or departing the site should log in and out with the Recordkeeper. All activities on site must be cleared through the Project Team Leader.

D. ONSITE CONTROL

DAVE HARTSHORN
(Name of individual or agency) has been designated to coordinate access control and security on site. A safe perimeter has been established at (distance or description of controlled area) GATE WILL BE SHUT & LOCKED DURING SAMPLING

No unauthorized person should be within this area.

The onsite Command Post and staging area have been established at ENGINEERING OFFICE

The prevailing wind conditions are NORTHERN. This location is upwind from the Exclusion Zone.

Control boundaries have been established, and the Exclusion Zone (the contaminated area), Hotline, Contamination Reduction Zone, and Support Zone (clean area) have been identified and designated as follows: (describe boundaries and/or attach map of controlled area) SEE MAP

These boundaries are identified by: (marking of zones, i.e., red boundary tape - hotline, traffic cones - support zone, etc.) TAG & FLAG SAMPLING AREAS

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The following protective clothing materials are required for the involved substances:

Substance	Material
(chemical name)	(chemical name, e.g., Vinyl)
<u>CYANIDE</u>	<u>PVC</u>
_____	_____
_____	_____
_____	_____

If air-purifying respirators are authorized, NORTH 5LB (MSHA APPROVED) (filtering medium) is the appropriate canister for use with the involved substances and concentrations. A competent individual has determined that all criteria for using this type of respiratory protection have been met.

NO CHANGES TO THE SPECIFIED LEVELS OF PROTECTION SHALL BE MADE WITHOUT THE APPROVAL OF THE SITE SAFETY OFFICER AND THE PROJECT TEAM LEADER.

G. ONSITE WORK PLANS

Work party(s) consisting of 1 persons will perform the following tasks:

Project Team Leader	<u>DAVE HARTMAN</u> (NAME)	<u>SAMPLE SOIL & DRUMS</u> (SUBSTANCE)
Work Party #1	_____	_____
Work Party #2	_____	_____
Rescue Team	<u>SHERIFF'S DEPT.</u>	_____
(required for	<u>DAVID WEINMAN</u>	_____
entries to IDLH	_____	_____
environments)	_____	_____
Decontamination	<u>DAVE HARTMAN</u>	_____
Team	_____	_____

The work party(s) were briefed on the contents of this plan at SITE.

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2. Emergency Medical Care

FOR CYANIDE EXPOSURE

DAVE HARTSHORN
(names of qualified personnel) are the qualified EMTs on site.
(medical facility names) DELTA (M. HSP) at (address) 125 S. WHITE ST DELTA, UT
phone 864-551 is located 40 minutes from this location.
(name of person) was contacted at (time) and briefed on
the situation, the potential hazards, and the substances involved. A map
of alternative routes to this facility is available at (community Command
Post) & SHERIFF'S OFFICE

Local ambulance service is available from DELTA at
phone 911. Their response time is 40 minutes.
Whenever possible, arrangements should be made for on-site standby.

First-aid equipment is available on site at the following locations:

First-aid kit	_____
Emergency eye wash	_____
Emergency shower	_____
(other)	<u>CYANIDE ANTIDOTE</u>

Emergency medical information for substances present:

Substance	Exposure Syndrome	First-Aid Instructions
<u>CYANIDE</u>	<u>DIZZY, WEAKNESS, VOMITING,</u> <u>DIFFICULT BREATHING</u>	<u>OXYGEN AND/OR AMYL NITRITE</u>
_____	_____	_____
_____	_____	_____

List of emergency phone numbers:

Agency/Facility	Phone #	Contact
Police	<u>911/864-2155</u>	_____
Fire	<u>911</u>	_____
Hospital	<u>864-55-91</u>	_____
Airport	<u>864-2591</u>	_____
Public Health Advisor	<u>864-1541</u>	_____

3. Environmental Monitoring

The following environmental monitoring instruments shall be used on site
(cross out if not applicable) at the specified intervals.

Combustible Gas Indicator	- continuous/hourly/daily/other _____
O ₂ Monitor	- continuous/hourly/daily/other _____
Colorimetric Tubes (Type)	- continuous/hourly/daily/other _____
_____	_____
HNU/OVA	- continuous/hourly/daily/other _____
Other	- continuous/hourly/daily/other _____
_____	- continuous/hourly/daily/other _____

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Appendix B

The following emergency escape routes are designated for use in those situations where egress from the exclusion zone cannot occur through the decontamination line: (describe alternate routes to leave area in emergencies) SEE MAP

In all situations, when an onsite emergency results in evacuation of the Exclusion Zone, personnel shall not reenter until:

1. The conditions resulting in the emergency have been corrected.
2. The hazards have been reassessed.
3. The Site Safety Plan has been reviewed.
4. Site personnel have been briefed on any changes in the Site Safety Plan.

5. Personal Monitoring

The following personal monitoring will be in effect on site:

WATCH FOR SYMPTOMS, CYANIDE ANALYSIS IN MINE LAB
 Personal exposure sampling: (describe any personal sampling programs being carried out on site personnel. This would include use of sampling pumps, air monitors, etc.)

Medical monitoring: The expected air temperature will be (65°F). If it is determined that heat stress monitoring is required (mandatory if over 70°F) the following procedures shall be followed:
(describe procedures in effect, i.e., monitoring body temperature, body weight, pulse rate)

All site personnel have read the above plan and are familiar with its provisions.

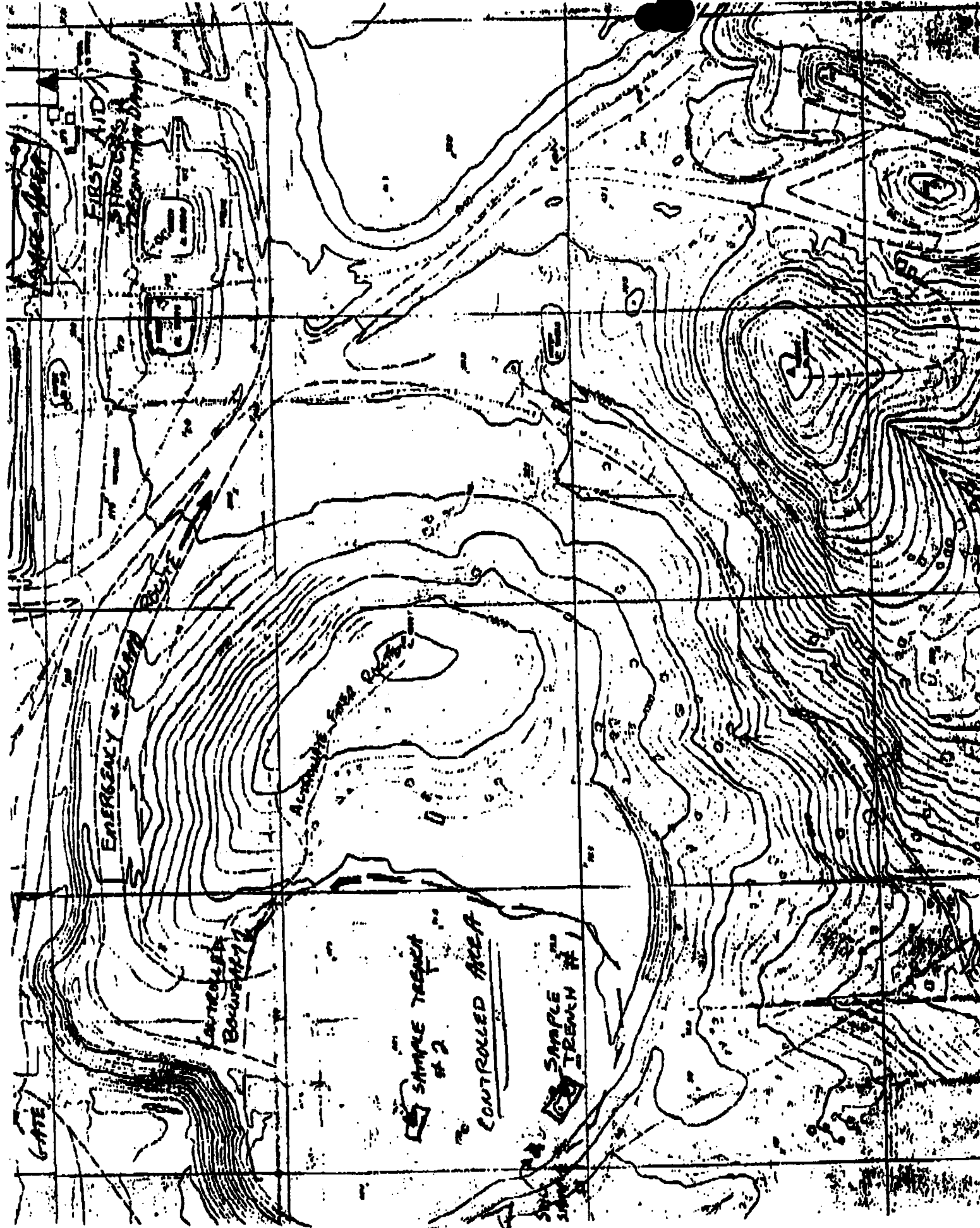
Site Safety Officer

Project Team Leader

Other Site Personnel

DAVE HARTSHORN

Dave Hartshorn
(signature)



**JUMBO MINING COMPANY
DRUM MINE PROJECT**

May 30, 1995

SAMPLE PLAN FOR SAMPLING EMPTY CYANIDE DRUMS IN DISPOSAL TRENCHES, CHEMICAL STAINS ON WASTE DUMP AND CEMENT IN RINSED CYANIDE DRUMS.

Jumbo Mining is preparing to collect samples from cyanide drums and chemical stains on the main waste dump. Our objective is to see if any cyanide remains in the drums in the disposal trench and in the drums containing cement as well as to assure that the chemical stains do not contain cyanide. Our methods and protocol for obtaining representative samples and analytical testing are given below.

EMPTY DRUMS IN DISPOSAL TRENCHES

Two trenches on the waste dump contain empty cyanide drums with the majority of the drums residing in the south trench (#1 trench). Four uncrushed drums in the south trench and two uncrushed drums in the west trench will be selected for sampling. Strict sampling and analytical protocol will be followed, and will include:

- Approximate measurement of amount of residue, sludge, dirt, etc. in each of the drums selected
- Tagging or marking each drum selected
- Collecting at least 100 grams of material from each drum (compositing material from 2 or more drums may be necessary to obtain enough product). Duplicate samples will be collected if requested by the BLM
- Placing and labeling sample in lab provided containers
- Transport of samples in ice chests to American West Analytical under chain of custody protocol for total and Wad cyanide analysis

CHEMICAL STAINS ON WASTE DUMP

Location and number of stains sampled will be determined by BLM personnel. Stains will be sampled for cyanide since the only other powder chemicals used on site were lime (pH control) and calcium chloride (road brine) and are not considered hazardous waste. Sampling methods and protocol will be as follows:

- Measurement of sized and approximation of quantity of each stain
- Tagging each stain to be sampled
- Collecting at least 100 grams of material and placing in lab provided containers (duplicates will be collected if desired by the BLM)
- Labeling and storage of sample in an ice chest at approximately 40 degrees F
- Transport of sample to American West Analytical under chain of custody protocol for total and WAD cyanide analysis

CEMENT IN CYANIDE DRUMS

Cement has been placed in 18 rinsed cyanide drums and placed on the waste dump. Proposed sampling and analytical testing are:

- Selecting 3 drums to be sampled
- Sampling at least 100 grams of material from each drum using a core sampler (if possible)
- Labeling and storage of sample in an ice chest at approximately 40 degrees F
- Transport of samples to American West Analytical under chain of custody protocol for total and WAD cyanide analysis

PERSONNEL

The sampling will be preformed by Dave Hartshorn using MSHA approved respirators and PVC suits. See safety plan.

JUMBO MINING

JUMBO MINING COMPANY

6305 Fern Spring Cove
Austin, Texas 78730

Tel. (512) 346-4537
Fax (512) 346-3188

May 26, 1995

Mark Novak
Department of Health
Bureau of Water Quality
288 North 1460 West
P.O. Box 16690
Salt Lake City, UT 84116-0690

RE: Workplan for additional perched aquifer sampling for
the Drum Mine project.

Dear Mr. Novak,

Jumbo Mining is planning to collect water samples from five monitoring holes in the perched aquifer. The holes selected contained the highest amount of total cyanide from our 1991 sampling. Our objective is to see what amounts of cyanide and metals remain in the aquifer. Our proposed methods and protocol for obtaining representative samples and analytical testing are given below.

PERCHED AQUIFER SAMPLING AND ANALYSIS

It is proposed that monitoring holes #'s 7, 8, 17, 33 and 34 be used to obtain representative samples of the aquifer. Strict sampling and analytical protocol will be followed, and will include:

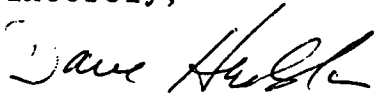
- Measurement of depth of the static water column
- Purging and disposal (into preg pond) of at least 2 well volumes
- Sampling using a submersible pump and placing sample in laboratory provided sample containers
- Labeling and storage of sample in an ice chest at approximately 40 degrees F
- Transport of the sample to American West Analytical under chain-of-custody protocol for WAD cyanide, total cyanide, arsenic, cadmium, chromium, lead and mercury analysis

PERSONNEL

The field work will be performed by myself and Don Gavin of Jumbo Mining.

Please inform me, after review of the workplan, whether any additional BWQ requirements need to be incorporated. The performance of the fieldwork is scheduled to begin June 19, 1995. If no response is made to us from your department by June 19, then it will be assumed that the above plan is approved by BWQ and we will proceed to sample as stated above.

Sincerely,



Dave Hartshorn
Project Manager

cc: Rody Cox, BLM
Wayne Hedberg, DOGM

SAMPLING PLAN DEFICIENCIES

The Sampling Plan submitted by Jumbo Mining does not address (or does not adequately provide) information on the following vital topics:

- Number of Samples to be Obtained from each Area
- Sample Volumes from each Location
- Use of Sampling Instruments and Containers
- Sampling Equipment to be Used
- Discussion of Sampling Techniques (e.g.)
 - Grab, Drum, Solid/Liquid Sampling Methodology
 - What constitutes a Representative/Composite sample
 - Methods to prevent cross-contamination
 - Use of Split Sampling; Use of Trip/Equipment Blanks
 - Use of PPE, Monitoring, Confined Space considerations
- Sample Preservation; Sample Storage (Holding Times)
- Rationale for Test Selection
- Descriptions of the SW-846 Test Methods to be Performed
- Sampling Personnel Utilized
- Sample Control and Custody procedures
- Sample Documentation
 - Marking, Labelling, Field Logs, Final Report
- Use of the Chain of Custody Form
- Transport of the Samples to the Laboratory
- Laboratory Credentials
- Analytic Report - Preferred Format

SAMPLING/ANALYTIC RECOMMENDATIONS

- Retrieve and sample the nine waste dump "roll-down" drums
- Sample Upper Berm Water (Next to the Processing Facility) for Cyanide/Arsenic
- Inspect and composite sample the "Calcium Chloride" drums for Cyanide
- Sample and Ph the Acid Wash "Carbon" for Characteristic DOO2 Corrosivity
- Sample and Fingerprint the "Lime Mix Pots" for Cyanides
- Sample & Test Petroleum Drums for BTEX, Chlorinated/Halogenated Solvents
- Sample & Test the Dump Chemical Stains for TCLP Metals, Vol's/Semi-Vol's
- Sample & Test the three tank soil stain areas for TPH, BTEX and TCLP Lead

WATCH - OUT !!!

Sampling in the Trench will be Perilous - the site has limited access, heavy equipment will need to be used to excavate down to the older cyanide drum levels, shoring may be needed, slip-trip-fall conditions are rife, numerous unknowns are mixed together and reactivity issues abound (Recommend at least Level "B" PPE; Continuous Site & Personnel Monitoring with full Back-up, Retrieval and Decon.)

REMEDIATION PLAN DEFICIENCIES

No procedures for:

- Documentation, Packaging, Marking, Transport & Disposal of RCRA Haz Wastes
- Empty Drum Triple-Rinse, Marking/De-marking, Rinseate/Drum Disposal
- Overpacking of Deteriorated Drums (especially Trench Cyanide Drums w. Product)
- PPE selection/usage; Decontamination; Site/Personnel Monitoring; Evacuation
- Haz Cat Identification; Fingerprint/Field Testing; Petroleum Product Screening.

No Documentation Requirements:

- EPA I.D. Number??
- Project Personnel Training Certificates; Respirator-Fit/Medical Certificates??
- Drum Recycling/Drum Reconditioning Receipts??
- Receipts for Lead Acid Battery, Tire, Scrap Metal Recycling/Salvage??
- Certificate of Recycling of Oil/Antifreeze Products; Petroleum Screening Cert's??
- Certificates of Disposal/Destruction from Landfills or other TSDFs??
- Shipping Papers; Weigh-in/out; Manifests; Analytic Results; Final Report??

Human/Environmental Health and Safety Deficiencies:

- As Detailed in HASP and Sampling Plan Deficiency Listings

LIST OF DRUM MINE
SITE-SPECIFIC HEALTH AND SAFETY PLAN (HASP)
DEFICIENCIES

- No Submittal of Paragraph "A" - Site Description. No Info. on:
 - Date of Sampling Project
 - Location of Tasks to Be Performed
Area Affected
 - Surrounding Population
 - Weather Conditions
- No Submittal of Paragraph "B" - Entry Objectives. No Info. on:
 - Objectives of Initial Entry into Contaminated Area
 - Tasks to be Accomplished (e.g. I.D. of spill areas, monitoring, etc.)
- Incomplete Submittal of Paragraph "C" - On-site Organization. No Info. on:
 - Names of designated project personnel (by Job Function)
Note - A minimum of two qualified personnel ("buddy system")
are required for any hazardous waste site entry/sampling
(minimum of a Team Leader and Safety Officer/Field Tech.)
 - Names of Federal Agency, State Agency or Contractor
Personnel Anticipated to Serve as On-site Representatives
- Incomplete Submittal of Paragraph "D" - On-Site Control. No Info. on:
 - Control Boundaries (Exclusion, Contamination, Reduction Zones)
Note - The On-site Command Post is designated as the Engineering
Office, a location which is too far removed and not line-of-sight
from sampling activities in the rubbish dump or trench areas.
- No Submittal of Paragraph "E" - Hazard Evaluation. No info.on:
 - Listings of Concentrations or Primary Hazards of the:
Sodium Cyanide, Hydrochloric Acid, Liquid Caustic Soda,
Flammable or Combustible Liquids (Petrochemical Products)
Other Corrosive Solids (Broken Batteries, Acid Wash "Carbon," etc.)
 - MSDS Information
 - Reactivity, Chemical/Packaging Incompatibility Information
- Incomplete Submittal of Par. "F" - Personal Protective Equipment. No Info. on:
 - Designation of Level "A" - "D" Personal Protective Equipment
(PPE) for the Three Work Zones
 - Descriptions of what each Level "A" - "D" PPE assemblage
specifically consists of (type of suits, gloves, respirators, etc.)
 - A list of Protective Clothing Materials for each Chemical Substance
 - A list of Authorized Respirator Canisters

HASP Deficiencies - 1

HEALTH AND SAFETY PLAN (HASP) DEFICIENCIES (continued)

- Incomplete Submittal of Paragraph "G" - Onsite Work Plan. No Info. on:
 - Project Team Leader Task functions
 - Designation by name of at least two qualified work party members
 - Tasks (functions) of the Decontamination "Team"Note - Project leader "self-decontamination" is not advisable
- No Submittal of Paragraph "H" - Communication Procedures. No Info. on:
 - Emergency and Hand Signals
 - Communication in the Exclusion Zone
 - Telephone Communication to the Command Post
- No Submittal of Paragraph "I" - Decontamination Procedures. No Info. on:
 - Decontamination Protocol (stations)
 - Emergency Decontamination Equipment
 - Decontamination Solution(s)
- No Submittal of Paragraph "J.1" - Designated Site Safety Officer
- Incomplete Submittal of Paragraph "J.2" - Emergency Medical Care. No info. on:
Emergency medical information including exposure symptoms
and First-Aid Instructions for Hydrochloric Acid, Liquid Caustic Soda,
Flammable Liquids, Corrosive Solids, etc.
- No Submittal of Paragraph "J.3" - Environmental Monitoring (instruments)
- Incomplete Submittal of Paragraph "J.4" - Emergency Procedures. No Info. on:
 - Designated emergency signal for Personnel Injury
 - Designated emergency signal for Fire/Explosion
 - Alternate Emergency Escape Routes are not clearly defined
- Incomplete Submittal of Paragraph "J.5" - Personal Monitoring. No info. on:
 - Medical monitoring procedures
- No Submittal of Appendix "C" - Hazardous Substance Information Form
 - No "Common or Chemical Name" Information
 - No "Physical/Chemical Properties" Information
 - No "Hazardous Characteristics" Information
 - No "Toxicological Hazard" or "Reactivity Hazard" Information
 - No "Corrosivity Hazard" Information
 - No "Description of Incident" Information
 - No "Recommended Protection" or "Site Control" Information
 - No "References For Sources" Information

OSHA vs MSHA

MSHA - regulations are applicable to actual mining and excavation operations
(i.e. open pit/shaft mining tasks, excavation, ventilation, machinery operation, shoring, etc. - worker safety and health during the mining)

OSHA - regulations are applicable to ore processing functions
(i.e. gold extraction from the ore in the processing facility, chemical and waste handling, etc. - general occupational worker safety/health)

State Director Final Decision (page 4) - "An individual conducting the sampling of unknown substances that could potentially be hazardous should be qualified under the provisions of Occupational Safety and Health Administration (OSHA) 29 CFR 1910.120 (Hazardous Waste Operation and Emergency Response)."

Regardless of MSHA/OSHA regulatory precedence the question is:

Is it safe for, and is Dave Hartshorn qualified to, conduct sampling of drums such as those marked Sodium Cyanide, Hydrochloric Acid (as well as numerous unmarked drums) in a dump area characterized by the presence of multiple unknown chemicals, multiple undetermined spill areas and other potential safety hazards (chemical reactivity, confined space, etc.).

Jumbo Mining does not have adequate Chemical Knowledge Of Process:

- No provision of MSDS information
- Inadequate understanding of: Chemical Hazards (Incompatibilities,/Reactivities); Proper Handling/Storage: Worker Protection (STEL, PPE, Decontamination, etc.)
- No provision of procurement, accumulation, storage, documentation
- No provision of what chemicals (or when these chemicals) were dumped on site
- Jumbo statement that the chemicals are leftovers from Western States operation
 - see page 4 of State Directors decision
 - No inventory of what chemicals were transferred or "inherited"
- Faulty procedures for previous "do-it-yourself" chemical I.d. and segregation
 - No BLM notification
 - Inadequate PPR, monitoring
 - No decon. or Emergency provisions
 - No sampling/laboratory analysis
 - Inadequate temporary storage
 - Improper marking and labeling
 - Dislocation of drums impaired soil stain I.d. process